



PCT

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/049,228

DATE: 02/27/2002

TIME: 13:08:33

Input Set : A:\TSUBOKURA.ST25.txt

Output Set: N:\CRF3\02272002\J049228.raw

```

3 <110> APPLICANT: TSUBOKURA, Akira
4   MIZUTA, Haruyoshi
6 <120> TITLE OF INVENTION: PROCESS OF PRODUCING CAROTENOID PIGMENTS
8 <130> FILE REFERENCE: 38331-0003
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/049,228
C--> 11 <141> CURRENT FILING DATE: 2002-02-11
13 <150> PRIOR APPLICATION NUMBER: PCT/JP01/04874
14 <151> PRIOR FILING DATE: 2001-06-08
16 <150> PRIOR APPLICATION NUMBER: JP 2000-175124
17 <151> PRIOR FILING DATE: 2000-06-12
19 <160> NUMBER OF SEQ ID NOS: 2
21 <170> SOFTWARE: PatentIn version 3.1
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 1452
25 <212> TYPE: DNA
26 <213> ORGANISM: Unknown
28 <220> FEATURE:
29 <223> OTHER INFORMATION: Nucleotide sequence corresponding to the 16S ribosomal RNA of
E-3
30   96 strain
32 <220> FEATURE:
33 <221> NAME/KEY: misc_feature
34 <222> LOCATION: (1350)..(1350)
35 <223> OTHER INFORMATION: n is A, C, G or T
38 <400> SEQUENCE: 1
39 agtttgatcc tggctcagaa cgaacgctgg cggcaggctt aacacatgca agtcgagcga      60
41 gaccttcggg tctagcggcg gacgggtgag taacgcgtgg gaacgtgccc ttctctacgg      120
43 aatagccccg ggaaactggg agtaataccg tatacgccct ttgggggaaa gatttatcgg      180
45 agaaggatcg gcccgcgttg gattaggtag ttggtggggt aatggcccac caagccgacg      240
47 atccatagct ggtttgagag gatgatcagc cacactggga ctgagacacg gcccagactc      300
49 ctacgggagg cagcagtggg gaattcttaga caatgggggc aacctgacg tagccatgcc      360
51 gcgtgagtga tgaaggcctt aggggttgtaa agctctttca gctgggaaga taatgacggt      420
53 accagcagaa gaagccccgg ctaactccgt gccagcagcc gcggtataac ggagggggct      480
55 agcgttggtc ggaattactg ggcgtaaagc gcacgtaggc ggactggaaa gtcagaggtg      540
57 aaatcccagg gctcaacctt ggaactgcct ttgaaactat cagtctggag ttcgagagag      600
59 gtgagtggaa ttccgagtgt agaggtgaaa ttctgagata ttccgaggaa caccagtggc      660
61 gaaggcggct cactggctcg ataactgacg tgaggtgcga aagcgtgggg agcaaacagg      720
63 attagatacc ctggtagtcc acgcgtaaaa cgatgaatgc cagacgtcgg caagcatgct      780
65 tgctcgtgtc acacctaacy gattaagcat tccgcctggg gactacggtc gcaagattaa      840
67 aactcaaagg aattgacggg ggcccgcaca agcgggtggg catgtggttt aattcgaagc      900
69 aacgcgcaga accttaacca cccttgacat ggcaggaccg ctggagagat tcagctttct      960
71 cgtaagagac ctgcacacag gtgctgcatg gctgtcgtca gctcgtgtcg tgagatgttc     1020
73 ggttaagtcc ggcaacgagc gcaaccacag tccctagtgt ccagcaattc agttgggaac     1080
75 tctatggaaa ctgccgatga taagtcggag gaaggtgtgg atgacgtcaa gtcctcatgg     1140

```

## RAW SEQUENCE LISTING

DATE: 02/27/2002

PATENT APPLICATION: US/10/049,228

TIME: 13:08:33

Input Set : A:\TSUBOKURA.ST25.txt

Output Set: N:\CRF3\02272002\J049228.raw

77 gccttacggg ttgggctaca cacgtgctac aatggtggtg acagtgggtt aatccccaaa 1200  
 79 agccatctca gttcgattg tcctctgcaa ctcgagggca tgaagttgga atcgctagta 1260  
 81 atcgcggaac agcatgccgc ggtgaatacg ttcccgggcc ttgtacacac cgcccgtcac 1320  
 W--> 83 accatgggag ttggttctac ccgacgacgn tgcgctaacc ttcggggggc aggcggccac 1380  
 85 ggtaggatca gcgactggg tgaagtcgta acaaggtagc cgtaggggaa cctgcggctg 1440  
 87 gatcacctcc tt 1452  
 90 <210> SEQ ID NO: 2  
 91 <211> LENGTH: 1426  
 92 <212> TYPE: DNA  
 93 <213> ORGANISM: Unknown  
 95 <220> FEATURE:  
 96 <223> OTHER INFORMATION: Nucleotide sequence corresponding to the 16S ribosomal RNA of

A-5

97 81-1 strain  
 99 <400> SEQUENCE: 2  
 100 tagagtttga tcctggctca gaacgaacgc tggcggcagg cttaacacat gcaagtcgag 60  
 102 cgagaccttc ggtctagcgc gcggacgggt gagtaacgcg tgggaacgtg cccttctcta 120  
 104 cggaatagcc ccgggaaact gggagtaata ccgtatacgc cctttggggg aaagatttat 180  
 106 cggagaagga tcggcccgcg ttggattagg tagttggtga ggtaacggct caccaagccg 240  
 108 acgatccata gctggtttga gaggatgata agccacactg ggactgagac acggcccaga 300  
 110 ctctacggg aggagcagc ggggaatctt agacaatggg ggcaaccctg atctagccat 360  
 112 gccgcgtgag tgatgaaggc cttagggttg taaagctctt tcagctggga agataatgac 420  
 114 ggtaccagca gaagaagccc cggctaactc cgtgccagca gccgcggtaa tacggagggg 480  
 116 gctagcgttg ttcggaatta ctgggcgtaa agcgcacgta ggcggactgg aaagtcagag 540  
 118 gtgaaatccc agggctcaac cttggaactg cctttgaaac tatcagctcg gagttcgaga 600  
 120 gaggtgagtg gaattccgag tgtagagggt aaattcgtag atattcgag gaacaccagt 660  
 122 ggcgaaggcg gctcactggc tcgatactga cgctgagggt cgaaagcgtg gggagcaaac 720  
 124 aggattagat accctggtag tccacgccgt aaacgatgaa tgccagacgt cggcaagcat 780  
 126 gcttgctcgt gtcacacctc acggattaag cattccgcct ggggagtag gtcgcaagat 840  
 128 taaaactcaa aggaattgac gggggcccgc acaagcgggt gagcatgtgg tttaattcga 900  
 130 agcaacgcgc agaaccttac caaccttgat catggcagga ccgctggaga gattcagctt 960  
 132 tctcgtaaga gacctgcaca cagggtgctgc atggctgtcg tcagctcgtg tcgtgagatg 1020  
 134 ttcggttaag tccggcaacg agcgcaaccc acgtccctag ttgccagcat tcagttgggc 1080  
 136 actctatgga aactgccggt gataagccgg aggaagggtg ggatgacgtc aagtcctcat 1140  
 138 ggcccttacg ggttgggcta cacacgtgct acaatggtgg tgacagtggg ttaatcccca 1200  
 140 aaagccatct cagttcggat tgctctctgc aactcgaggg catgaagttg gaatcgctag 1260  
 142 taatcgcgga acagcatgcc gcggtgaata cgttcccggg ccttgtagac accgcccgtc 1320  
 144 acaccatggg agttggttct acccgacgac gctgcgctaa cccttcgggg aggcaggcgg 1380  
 146 ccacggtagg atcagcgact ggggtgaagt cgtaacaagg tagcca 1426

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/049,228

DATE: 02/27/2002

TIME: 13:08:34

Input Set : A:\TSUBOKURA.ST25.txt

Output Set: N:\CRF3\02272002\J049228.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:83 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1